# LOAN PREDICTION USING ENSEMBLE TECHNIQUE

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**OVERVIEW :**

In 2017, Goyal and Kaur presented a loan prediction model using several Machine Learning (ML) algorithms. The dataset with features, namely, gender, marital status, education, number of dependents, employment status, income, co applicant‘s income, loan amount, loan tenure, credit history, existing loan status, and property area, are used for determining the loan eligibility regarding the loan sanctioning process. Various ML models adopted in the present method includes, Linear model, Decision Tree (DT), Neural Network (NN), Random Forest (RF), SVM, Extreme learning machines, Model tree, Multivariate Adaptive Regression Splines, Bagged Cart Model, NB and TGA. When evaluated these models using Environment in five runs, TGA resulted in better loan forecasting performance than the other methods.

**MERITS :**

Ensemble Model gives the better prediction than the individual models. This model also enhances the performance and accuracy of the model. Through Ensemble model we compare the several models and choose the best model for our data that helps the organization to make the right decision for the loan request of the costumer.

**DEMERITS:**

- Ensembling is less interpretable, the output of the ensembled model is hard to predict and explain. Hence the idea with ensemble is hard to sell and get useful business insights.
- The art of ensembling is hard to learn and any wrong selection can lead to lower predictive accuracy than an individual model.
- Ensembling is expensive in terms of both time and space. Hence ROI can increase with ensembling.